Decision Support Toolbox

http://Toonville.com/SemperToons/

"AND HE SAID THE OBVIOUS ROUTE WAS MORE DANGEROUS"

Schedule

Overview
- Purpose
- What is DSTB
- Terrain Data

Setup
- Data Paths
- Toolbars
- Saving as C2PC Overlays

Performing Terrain Analysis
- Point Analyses
- Line Analyses
- Area Analyses
- User Defined Terrain

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Purpose

The purpose of this class is to familiarize the user with the functions of the Decision Support Toolbox as well as to produce proficient operators capable of producing intelligence or operational products that are needed to support their units mission.

DSTB

MSTP

What is DSTB and what does it do?

DSTB is a program which utilizes digital terrain and elevation data to produce terrain and decision point analysis as well as operations and intelligence graphics.

DSTB allows the user to import, manipulate and analyze terrain data to better understand terrain and its effects on friendly and hostile operations in both the offense and defense.

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Terrain Data

DTED- Uniform matrix of terrain elevation values which provides basic quantitative data for systems and applications that require terrain elevation, slope, and/or surface roughness information.

*Data that represents the contours of the earth's surface.

VPF- Standard format, structure, and organization for large geographic databases that are based on a georelational data model and are intended for direct use. VPF uses tables and indexes that permit direct access by spatial location and thematic content and are designed to be used with any digital geographic data in vector format that can be represented using nodes, edges, and faces.
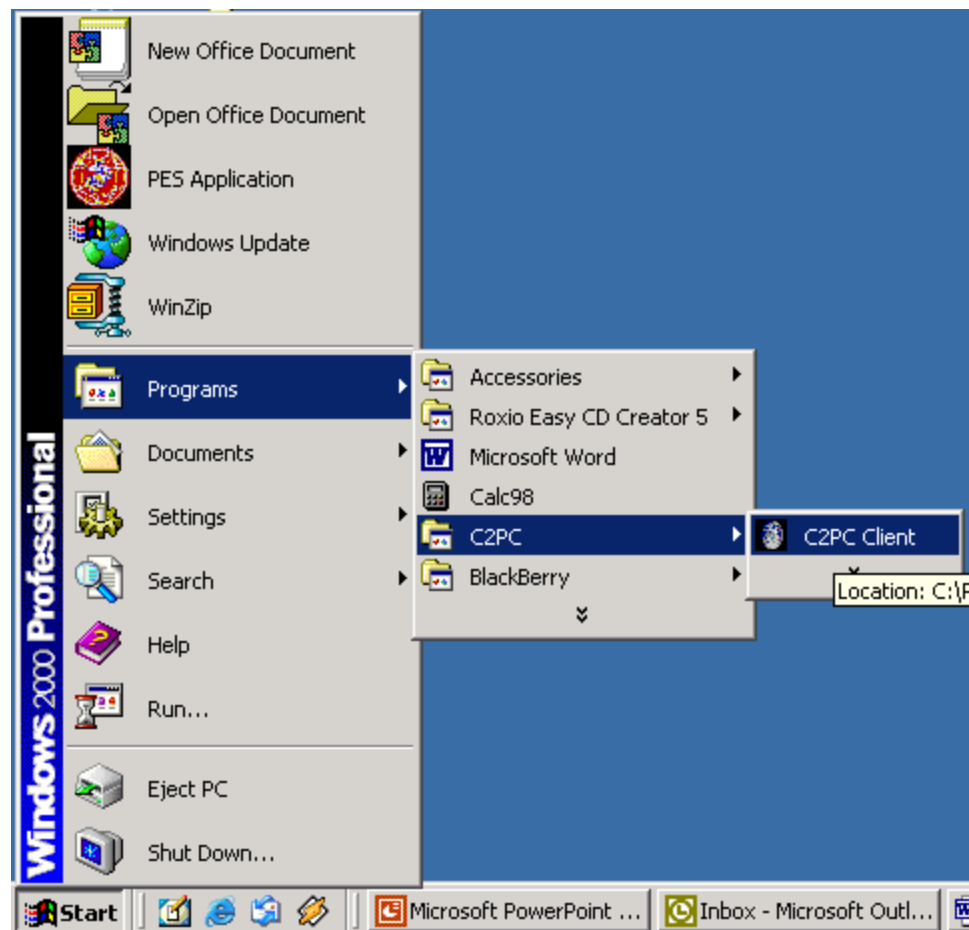
*A map associated with a database which contains information on both man made and natural map features as well as data on vegetation, hydrography, etc.

Accessing DSTB
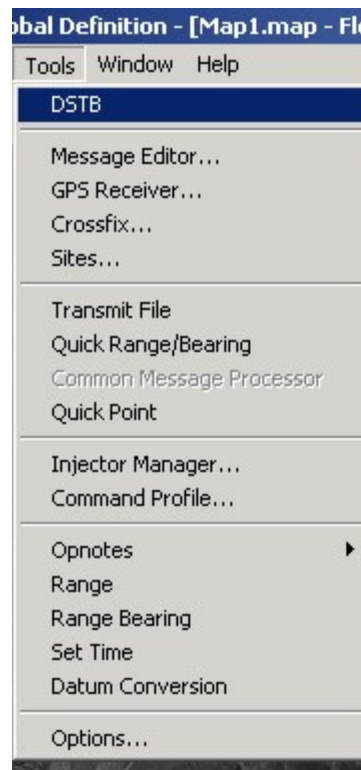
MSTP

**Start>>Programs>>
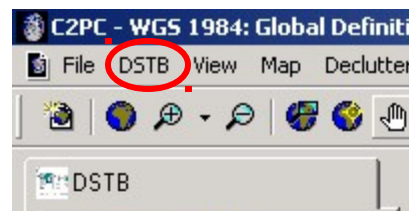C2PC>>C2PC Client.**

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Accessing DSTB

Tools>>DSTB
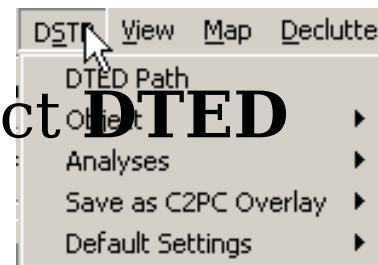

Result:

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Setting Data Paths
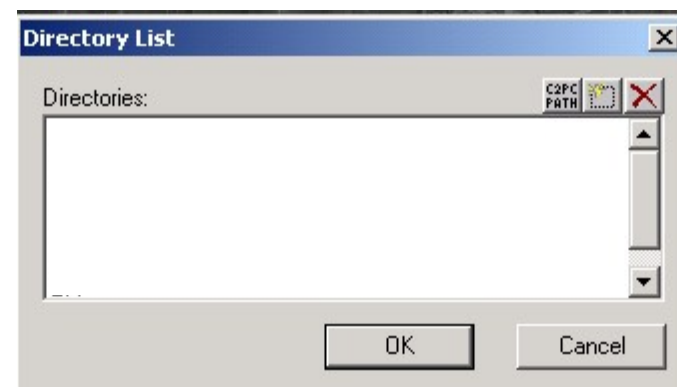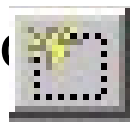
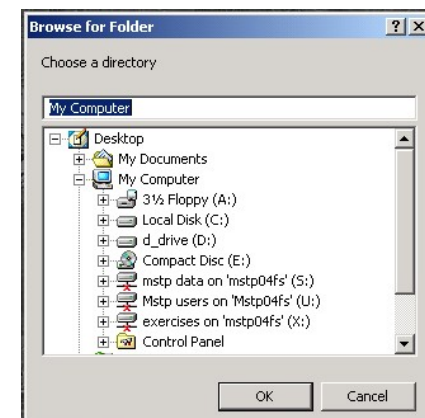Step 1: Go to the **DSTB menu** and select **DTED path**.

Result:

Step 2: Select the **new path button** and find the location of the data.

Result:

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Toolbar

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Help Menu

Elevation
Tracking

IPB Overlay Tools

DSTB objects

User Defined
Terrain

Remove User Defined Terrain

Mobility types

ARM 1: Highly Mobile Armored Vehicles

M1, M1A1 Abrams

M2, M2A1, M2A2, M2A3 Bradley Fighting Vehicle

M3, M3A1, M3A2 Cavalry Fighting Vehicle

T-72, T-72M, and Chinese T-72 derivatives (Tank)

T-80 Tank

T-90 Tank

BMP-3 (Infantry Fighting Vehicle), and derivatives

Challenger (Tank)

Crusader howitzer

Point to Point ? X

Point to Point | Mobility Rates | Location

Unit Type: New Unit Type...
ARM1 Remove Unit Type

Slope	Speed
0	40
15	16
30	1
45	0.2

Save As Defaults

Close

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Mobility types

ARM 2: Moderately Mobile Armored Vehicles

M60A3 Tank

M113 Armored Personnel Carrier

M109-series Howitzers

T-62 Tank

T-54/55 Tank

BMP-1, BMP-2, and Chinese derivatives

MTLB

T-34 Tank

M-47/M-48 Tank

2S1, 2S3, 2S5, 2S7, 2S9 Howitzers

LVTP/AAV-7

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Point to Point ? X

Point to Point | Mobility Rates | Location

New Unit Type...

Unit Type:

ARM2 ▼   Remove Unit Type

Slope	Speed
0	24
15	8
30	1
45	0.2

Save As Defaults

Close

Mobility Types

WHL: Wheeled Combat Vehicles

LAV

BTR-60, BTR-70, BTR-80, BTR-90

BRDM

HMMWV

Point to Point

Point to Point | Mobility Rates | Location

Unit Type:

WHL

New Unit Type...

Remove Unit Type

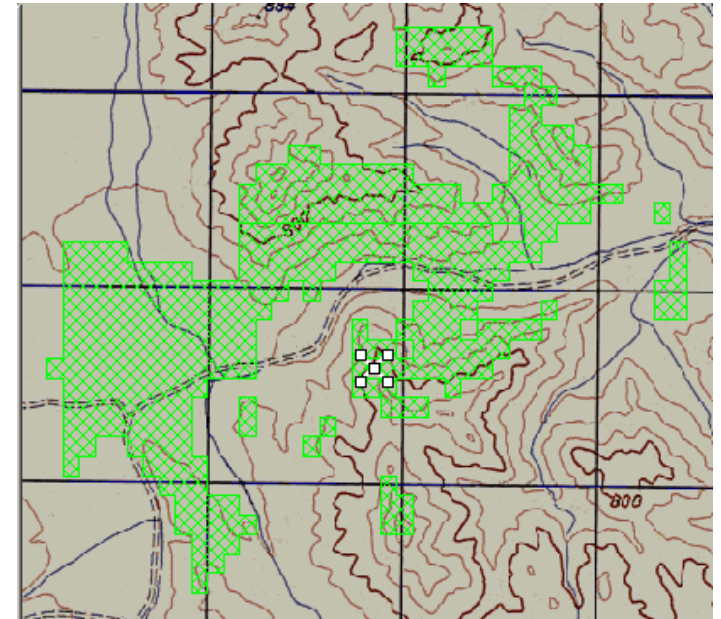| Slope	Speed
0	30
15	12
30	1
45	0.2

Save As Defaults

Close

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Point / Line of Sight

- Recon and Surveillance Planning

  - OP's & LP's

- Communication Planning

  - Relay Sites

- Positioning of Weapon Systems

  - Direct
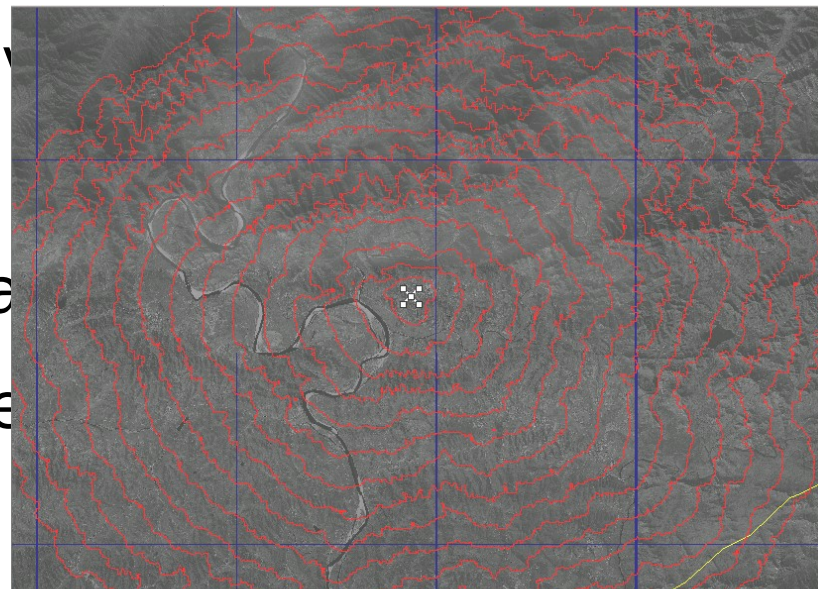
  - Indirect

- Terrain Masking

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Point / Range Rings

- Gives the user a time-based depiction of where a unit could move in a given amount of time based on terrain.

- Can be customized to take into account other factors of intelligence rele[...]

  - Different units

  - Unusually Difficult Terra[...]

- Decision Point establishme[...]

  - Rally Points

  - Check Points

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Line / Point to Point

- Fastest route between two points. Dependent upon:

  - Echelon

  - Unit Type
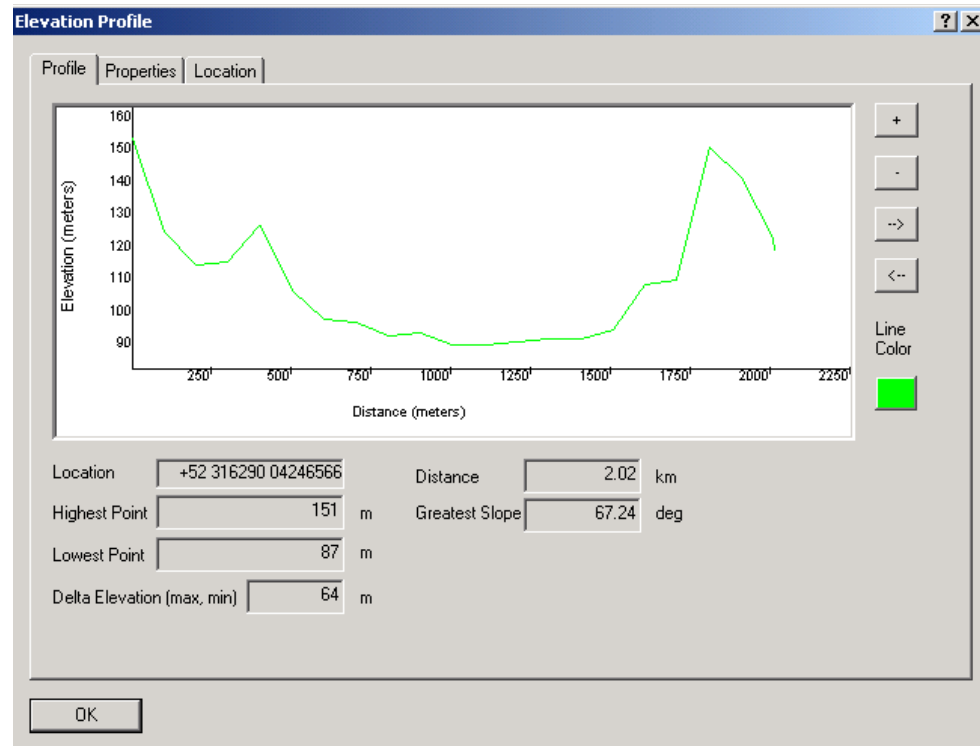
  - Percent of Max Speed

- Displays best route based o

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Line / Profile

- Graphically depicts the elevation over the given distance.
- Shown in graph format to represent a cut away view of the earth's surface.

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Terrain Slope Settings

DSTB Terms **Doctrinal Terms** **Parameters** **Color**

DSTB Terms	Doctrinal Terms	Parameters	Color
Unrestricted Terrain (UR)	Go	< 15 degrees	
Restricted Terrain (R)	Slow Go	15 degrees	YELLOW
Severely Restricted Terrain (SR)	No Go	30 degrees	RED
Impossible Terrain (SSR)		> 45 degrees	BLACK

Area / Terrain Categorization

- Allows the user to define Restricted Terrain based on Slope.
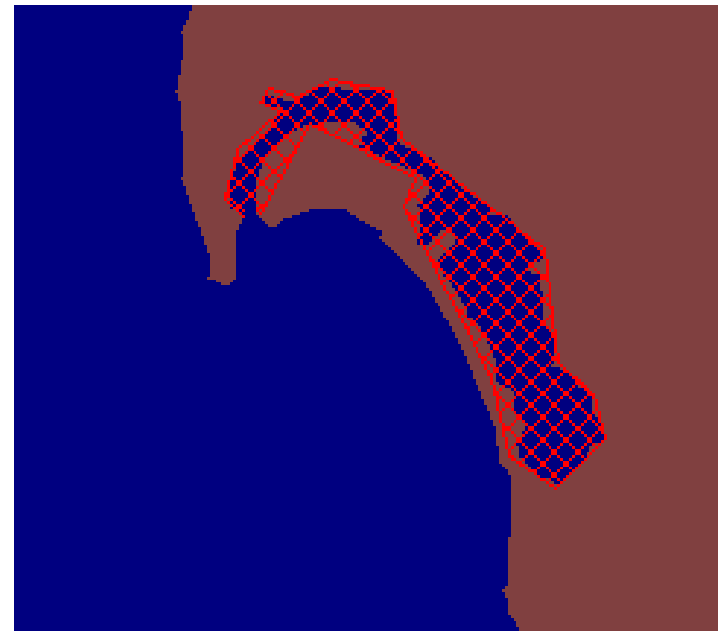
- Cuts down on time used to create IPB products.

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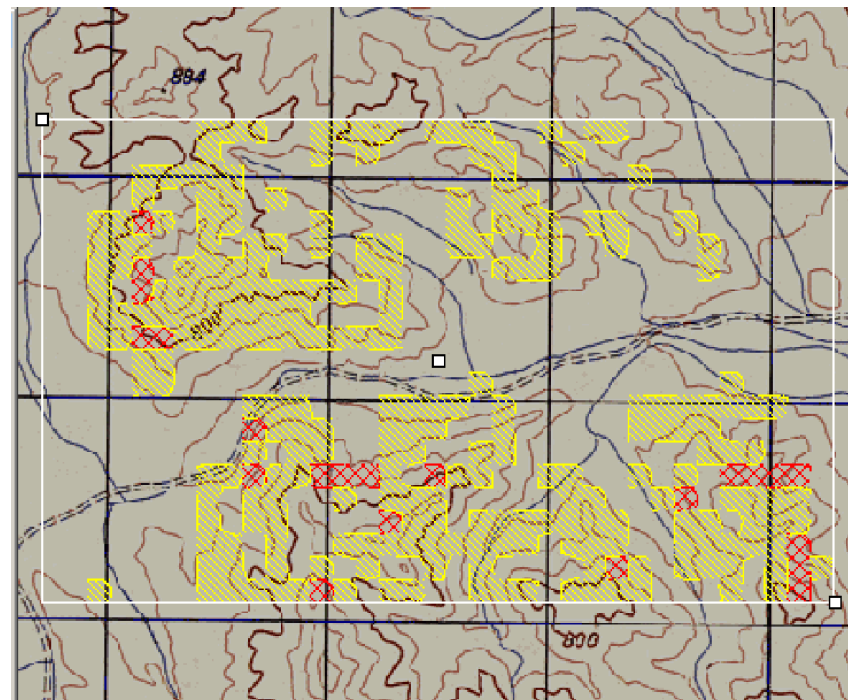
User Defined Terrain

- Allows the user to create a designated Terrain Area.

- Used when DTED data does not accurately reflect terrain.

  - Contaminated Areas

  - Minefields

  - Enemy Concentrations
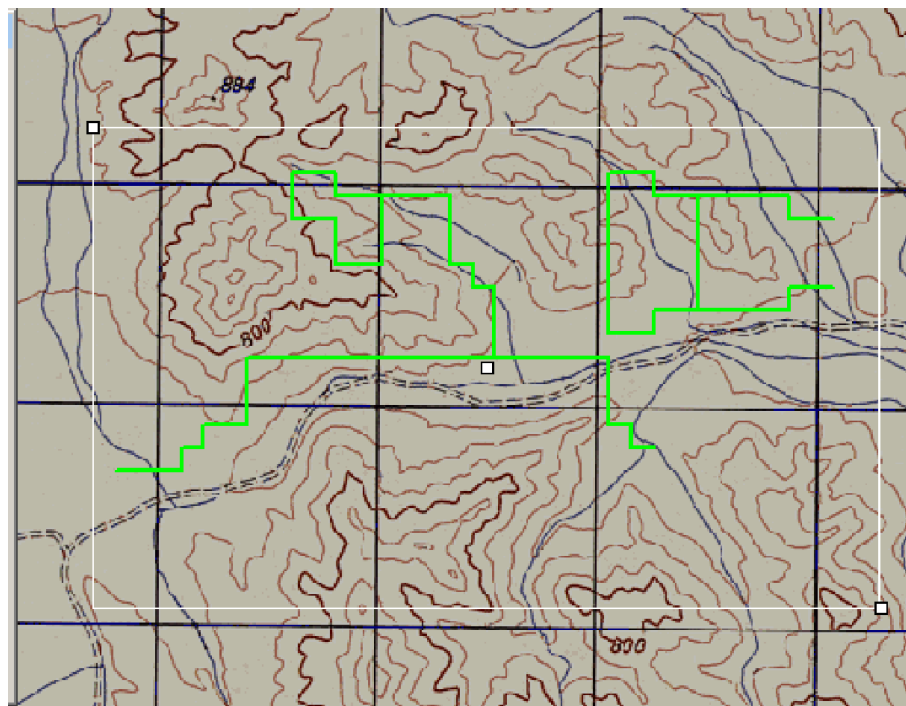
  - Vegetation

- Best performed on a 1:50K map.

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Version 3.0

Area / Mobility Corridors

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- Corridors based on tactical echelon
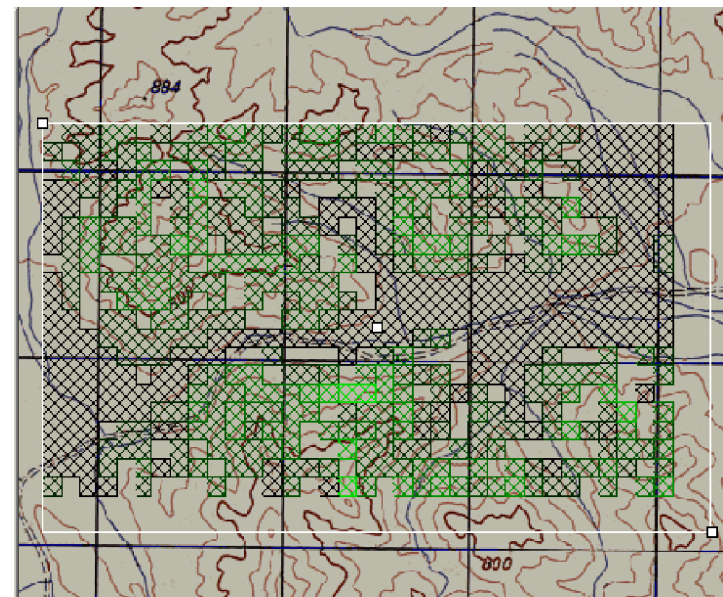
- Choke points/Bottle neck establishment

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Area / Slopes

- Similar to Terrain Categorization.
- Does not designate Restricted Terrain.
- Depicts degree of slope.
  - Lighter Color depicts Steeper ground
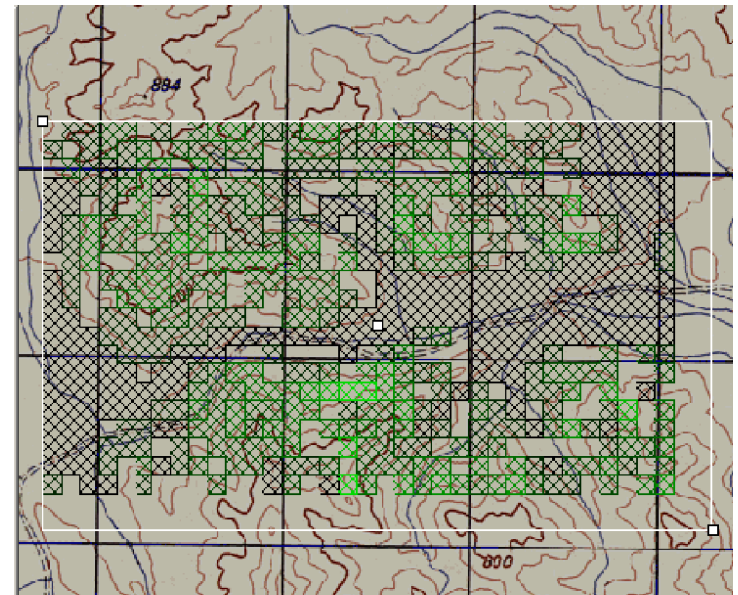 - Darker Color depicts Flatter ground

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Area / Contours

- Elevation Relief Overlay

- Terrain Masking

- Trafficability for low flying aircraft/helicopters

- Depicts color picture of elevation contour lines .

  - Lighter Color depicts Higher ground
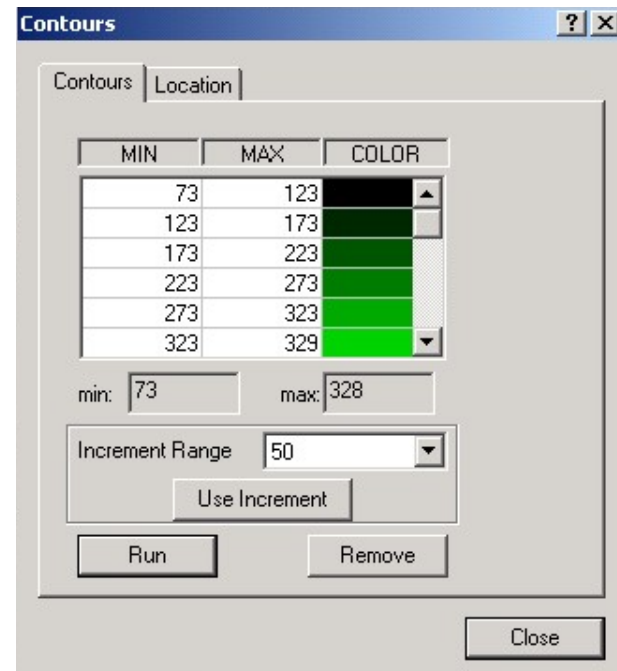
  - Darker Color depicts Lower elevations

Area / Contours

1. Place an **Area**

2. Go to the **DSTB menu**, select **Contours**.

3. Designate the **Min and Max Elevation Intervals**.

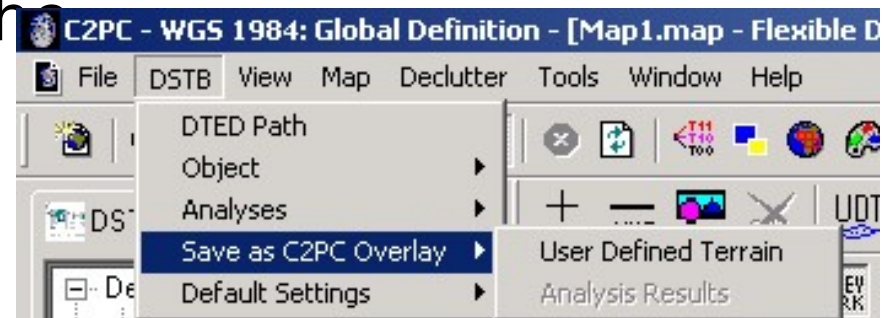4. Designate the color for each **Elevation Interval**.

5. Click **Run**.

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Saving as C2PC Overlays

1. Have an analysis displayed on the C2PC map.
2. Go to the **DSTB menu**, select **User Defined Terrain** or **Analysis Results**.
3. The Analysis will be converted to a C2PC overlay file (*.mgc) and sent to the Default Overlays Folder.

20

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Points of Contact

MSTP

JUST AS OUR FEARLESS DEVIL DOG
ESTABLISHES HIS THREE POINTS OF
CONTACT" HE REALIZES THAT THE ONLY
DISADVANTAGE TO FREE CLIMBING....
IS FREE FALLING!!

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www.mstp.usmc.smil.mil (SIPRNET)